<u>ABSTRACT</u>

CARBORANYLPORPHYRINS AND USES THEREOF

The present invention is directed to low toxicity boronated compounds and methods for their use in the treatment, visualization, and diagnosis of tumors. More specifically, the present invention is directed to low toxicity carborane-containing 5, 10, 15, 20-tetraphenylporphyrin compounds and methods for their use particularly in boron neutron capture therapy (BNCT) and photodynamic therapy (PDT) for the treatment of tumors of the brain, head and neck, and surrounding tissue. The invention is also directed to using these carborane-containing tetraphenyl porphyrin compounds to methods of tumor imaging and/or diagnosis such as MRI, SPECT, or PET.